

the taxon becomes a species. (This concept is pretty well developed by G. Einar Du Rietz in his "Fundamental Units of Biological Taxonomy", *Svensk Botanisk Tidskrift* 24: 333-428. 1930.) So when a species has not quite become finally demarcated, as in the case of *C. molesta*, an occasional intermediate is to be expected and such intermediates are quite likely to be concentrated in some portion of its geographic range. In my experience they seem to occur chiefly at the periphery of the range, at the portion relatively recently invaded by the species and farthest from its center where it has been longest established and where the distinctions are most pronounced and stable (in this case Kansas and Nebraska). A similar case is that of *Juncus dudleyi* which, although amply distinct from *J. platyphyllus* in the New England States, breaks down completely in the Southwest where transitional forms outnumber the sum of extremes."—LINCOLN, MASSACHUSETTS.

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### A NEW SPECIES OF TERNSTROEMIA FROM JAMAICA, B. W. I.

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BOTANICALLY speaking one of the least explored areas on the island of Jamaica is the John Crow Mountain range in the parish of Portland at the eastern end of the island. This range, a rugged limestone tilted plateau, reaches an elevation of 3800 ft. No roads cross it and even access to its slopes is limited to trails. Because of their location the John Crow Mountains are the first to intercept the rain laden northeast trade winds and for this reason the rainfall in the mountains is heavy. Reasonable estimates place the annual rainfall near the crest at 300 inches while even the driest location near the coast at Priestman's River where records are kept reveal an annual precipitation of 100 inches. The heavy rainfall has eroded the limestone rock into a treacherous dogtooth or honeycomb surface which makes travel both dangerous and exhausting. For reasons of limited accessibility, difficult travel and heavy rains, few botanists have ventured in the John Crow Mountains and relatively few botanical records are available. Britton

and Harris have collected the lower slopes especially at the southern end, and more recently George Proctor of the staff of the Institute of Jamaica has crossed the range and made several other excursions toward the crest of the mountain mass. One of the most interesting approaches has been from the land settlement area at Ecclesdown. The approach to the mountains follows a trail leading to areas of limited cultivation, beyond which are blaze marks leading to an erosion valley on the escarpment. A rugged climb up this valley brings the botanist to an eastern shoulder of the John Crow Mountains, an area of a most interesting stunted mossy or elphin forest. George Proctor has collected alone in this area several times, and at other times has had the company of Richard A. Howard. Each trip during the varying seasons of the year seems to have yielded new species or species new to Jamaica, as well as range extensions for Jamaican endemics. The following new species of *Ternstroemia* was collected by Howard and Proctor on their most recent trip to this area in September of 1956, and is named for Professor Howard.

***Ternstroemia howardiana* Kobuski, sp. nov.**

Arbor 4 metralis, ramulis verticillatis, rugosis, glabris, teretibus, striatis, griseis. Folia apice ramulorum congesta, coriacea, glabra, obovata, 4–7 cm. longa, 2–4 cm. lata, apice rotundata vel late obtusa, basi cuneata vel attenuata, subtus pallidiora, margine plana (in sicco subrevoluta), integra, venis obscuris, 8–10 paribus, petiolis 7–10 mm. longis. Flores solitarii, pedicellis glabris, ca. 1.5 cm. longis, tenuibus, ancipitibus; bracteis 2, oppositis, glabris, decurrentibus, crassiusculis, inaequalibus, margine glanduloso-denticulatis, bractea externa deltoidea, ca. 1.25 mm. longa, 0.75 mm. basi lata, intera deltoidea vel deltoideo-ovata, ca. 1.25 mm. longa, ca. 1 mm. basi lata; sepalis 5, imbricatis, inaequalibus, crassatis, rotundatis vel subrotundatis, exterioribus duobus ca. 4 mm. longis et 3.5 mm. latis, subconcavis, margine glanduloso-denticulatis, interioribus tribus concavis, margine leviter glanduloso-denticulatis vel integerrimis, 4–5 mm. longis, 4–5 mm. latis (4 × 4.2, 4.8 × 5, 5 × 5 mm.); petalis 5, albis imbricatis, basi leviter connatis, odoratis, subaequalibus, subrotundatis, apice acre apiculatis, ca. 7 mm. longis, exterioribus duobus ca. 6 mm. latis, interioribus tribus 4–4.5 mm. latis, margine scariosis; staminibus 55–65, seriatis (ut videtur 3), glabris, basi ad corallam adnatis, longissimis (exterioribus) 5.5 mm. longis et brevissimis (interioribus) 3.5 mm. longis, filamentis 3–3.5 mm. longis (exterioribus) et ca. 1.5 mm. longis (interioribus), basi (2/3) dilatatis ad 0.5 mm. diametro, supra (1/3) constrictis, antheris ca. 2 mm. longis,

connectivo apice 0.5 mm. projecto; ovario conico, glabro, ca. 3 mm. longo et 2 mm. diametro, 2-loculato, loculis pauci-ovulatis. Fructus non visus.

JAMAICA: PORTLAND PARISH: John Crow Mts., 2.5 miles southwest of Ecclesdown, alt. 2500 ft., *R. A. Howard and G. R. Proctor 14841* (Arnold Arboretum—Type; Institute of Jamaica—Isotype), Sept. 14, 1956 (tree 12 ft. high; leaves lighter below; corolla white, fragrance sweet and spicy; stamens cream-colored).

This new species is undoubtedly an isolated endemic, probably confined to the John Crow Mts. of Jamaica. This is not unusual since isolated endemism is quite common in the family. Its closest relative is *T. hartii*. In habit and leaf characters the two species are quite similar. However, the latter species can be separated from *T. howardiana* by the characters found in the larger flowers. In *T. hartii* the pedicel measuring 1.5–5 cm. long is much sturdier and generally considerably longer. The sepals measure 6–7 mm. in length with the petals (ca. 8 mm. long) barely showing beyond the sepals. On the other hand, in *T. howardiana* the pedicels are shorter and distinctly more slender. The sepals are smaller measuring ca. 4 mm. in length with the petals nearly twice as long (7 mm.) and extending conspicuously beyond the sepals.

A character, not generally observed in other species of *Ternstroemia*, is found in the filaments of the stamens of *T. howardiana*. The lower two-thirds of both the long and the short filaments are conspicuously dilated while the upper third is thread-like. In most species the entire filament is thread-like. This observation was made from both the dried material from the herbarium sheet and preserved material fixed in the field by the collectors.—HARVARD UNIVERSITY, CAMBRIDGE.

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## DISTRIBUTIONAL AND NOMENCLATORIAL NOTES ON GALIUM (RUBIACEAE)

HUGH H. ILTIS

THE following data are partly a by-product of preliminary work on the *Rubiaceae* of Wisconsin (Urban and Iltis, 1957) and partly a result of field work in Arkansas during 1955. I wish to thank G. N. Jones and M. Bergseng for the loan of specimens from the University of Illinois Herbarium.